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10/786,863	02/24/2004	Johan van de Groenendaal	063170.6774 (20000213-CON)	3676
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EXAMINER PHAM, MICHAEL				
ART UNIT		PAPER NUMBER		
2167				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/786,863	GROENENDAAL ET AL.	
	Examiner	Art Unit	
	Michael D. Pham	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Status of claims

1. Claims 1-20 are pending.
2. Claims 1-20 have been examined.

Claim Objections

3. Claims 1, 3, 9, and 16 are objected to because of the following informalities: Claims 1 and 9 all recite several instances of the phrase “adapted to” which suggests or makes optional but does not require the steps to be performed or does not limit a claim to a particular structure. See MPEP 2111.04 as noted below. Limitations, as is, are not being positively claimed, and further the “adapted to” clause as used in the claims does not constitute a condition because it is directed to an intended use rather than a condition. Therefore, because the claim is not limited it is not in proper form and therefore according to MPEP 706.1 qualifies as an objection. The examiner respectfully suggests removing this phrase, to more positively claim the limitation.

5. Prior objection towards claims 10, 17, and 18 are respectfully withdrawn.
6. Objections to claim 15-20 are respectfully withdrawn.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Prior rejections towards claim 9, 10, 14, 17, and 18 are respectfully withdrawn.
9. Claims 1-8 and 15 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106.06

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” Both types of “descriptive material” are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6122639 by Babu et. al. (hereafter Babu).

Claim 1:

Babu discloses:

“a relational interface adapted to receive a relational query from a software application requesting network management information from a specified network device;” [figure 1, element 102 (relational interface), 104 (software application), and 118a (specified network device)]

“a relational mapper adapted to translate the relational query received through the relational interface from the software application, to native protocol messages according to an access protocol associated with the network device; and” [figure 1 element 40, col. 8 lines 20-23, lookup operation and the other look up operations using queries in the structured query language to tables in the database 40 (i.e. translate the relational query received through the relational interface from the software application), figure 1 element 126 in figure 1 element 40 (i.e. to native protocol messages according to an access protocol associated with the network device)]

“a protocol transaction handler adapted to handle the native protocol messages as a transaction with the network device, and return a result of the transaction to the software application” [Col. 1 lines 64-67) MIBS that are supported by the device. A MIB specifies groups of objects, each object defines a group of data types. Figure 1 Element 124 (Network information report, (return result to software application)].

Claim 2:

Babu discloses “wherein the relational mapper includes a relational model of the network device” [figure 1, device class table].

Claim 3:

Babu discloses “wherein the relational mapper is adapted to translate a query to plural messages corresponding to plural access protocols” [figure 4B element 414].

Claim 4:

Babu discloses “wherein the relational mapper is expandable to receive queries directed to additional network devices which use other protocols different from said access protocol, transparent to said software application” [col. 1 lines 43-45, data collection system to be extensible].

Claim 5:

Babu discloses “wherein the collection of information of the network device is viewed as a relational database” [col. 8 lines 38-40, SQL to tables in database 40].

Claim 6:

Babu discloses “wherein the relational query is independent of management and/or access protocols” [Figure 4A, queries for detailed device is not dependent on MIB set.].

Claim 7:

Babu discloses “wherein the translation of the relational query to native protocol messages is an abstraction transparent to said software application” [figure 4B element 402].

Claim 8:

Babu discloses “wherein a form of the relational query does not depend on the access protocol to which the relational query is to be translated” [Figure 4A, first step. Query device for detailed device data.]

Claim 9:

Babu discloses “A relational modeler apparatus adapted to translate a relational query from a software application requesting network management information from a specified network device” [figure 1 element 40, col. 8 lines 20-23, lookup operation and the other look up operations using queries in the structured query language to tables in the database 40 (i.e. translate the relational query received through the relational interface from the software application) “, figure 1 element 126 in figure 1 element 40 (i.e. to native protocol messages according to an access protocol associated with the network device)],

“to native protocol messages according to an access protocol associated with the network device, wherein said native protocol messages is handled as a transaction with the network device” [figure 1 element 40, col. 8 lines 20-23, lookup operation and the other look up operations using queries in the structured query language to tables in the database 40 (i.e. translate the relational query received through the relational interface from the software application), figure 1 element 126 in figure 1 element 40 (i.e. to native protocol messages according to an access protocol associated with the network device)].

Claim 10:

Babu discloses the following claimed limitation:

“a first segment including relational interface code to receive a relational query from a software application requesting network management information from a specified network device” [figure 1, element 102 (relational interface), 104 (software application), and 118a (specified network device)];

“a second segment including relational mapper code to translate the relational query received from the software application, to native protocol messages according to an access protocol associated with the network device; and” [figure 1 element 40, col. 8 lines 20-23, lookup operation and the other look up operations using queries in the structured query language to tables in the database 40 (i.e. translate the relational query received through the relational interface from the software application), figure 1 element 126 in figure 1 element 40 (i.e. to native protocol messages according to an access protocol associated with the network device)]

“a third segment including protocol transaction handler code to handle the native protocol messages as a transaction with the network device, and return a result of the transaction to the software application.” [Col. 1 lines 64-67) MIBS that are supported by the device. A MIB specifies groups of objects, each object defines a group of data types. Figure 1 Element 124 Network information report, (return result to software application)]

Claim 11:

Babu discloses the following claimed limitations:

“receiving a relational query from a software application requesting network management information from a specified network device;” [figure 1, element 102 (relational interface), 104 (software application), and 118a (specified network device)]

“translating the relational query received from the software application, to native protocol messages according to an access protocol associated with the network device; and” [figure 1 element 40, col. 8 lines 20-23, lookup operation and the other look up operations using queries in the structured query language to tables in the database 40 (i.e. translate the relational query received through the software application), figure 1 element 126 in figure 1 element 40 (i.e. to native protocol messages according to an access protocol associated with the network device)]

“handling the native protocol messages as a transaction with the network device and returning a result of the transaction to the software application.” [Col. 1 lines 64-67) MIBS that are supported by the device. A MIB specifies groups of objects, each object defines a group of data types. Figure 1 Element 124 (Network information report, (return result to software application))]

Claim 12:

Babu discloses

“a processor; and” [figure 5 element 504]

“a program storage device readable by the computer system, tangibly embodying a program of instructions executable by the processor to perform the method claimed in claim 11” [Figure 5, elements 506, 508, and 510].

Claim 13:

Babu discloses “A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform the method claimed in claim 11” [Figure 5].

Claim 14:

Babu discloses “A computer data signal transmitted in one or more segments in a transmission medium which embodies instructions executable by a computer to perform the method claimed in claim 11”[figure 5].

Claim 15:

Babu discloses “wherein the access protocol associated with the network device is selected from a group consisting of: Simple Network Management Protocol” [col. 19 line 29];

Claim 16:

Babu discloses “the relational mapper adapted to translate the relational query in the form of structural query language, received through the interface from the software application, to native protocol messages according to an access protocol, in the form of simple network management protocol associated with the network device” [figure 4A elements 402-412, query device for detailed device data, translate using MIB sets, Construct SNMP Query, mapping back to database 40, create change report based on data].

Claim 17:

Babu discloses “wherein the access protocol associated with the network device is selected from a group consisting of: Simple Network Management Protocol” [col. 19 line 29];

Claim 18:

Babu discloses “the second segment including relational mapper code to translate the relational query, in the form of Structured Query Language, received from the software application, to native protocol messages according to an access protocol, in the form of Simple Network Management Protocol, associated with the network device.” [figure 4A elements 402-412, query device for detailed device data, translate using MIB sets, Construct SNMP Query, mapping back to database 40, create change report based on data].

Claim 19:

Babu discloses “wherein the access protocol associated with the network device is selected from a group consisting of: Simple Network Management Protocol” [col. 19 line 29];

Claim 20:

Babu discloses “wherein translating the relational query received from the software application, to native protocol messages according to an access protocol associated with the network device comprises translating the relational query, in the form of Structured Query Language, received from the software application, to native protocol messages according to an access protocol, in the form of Simple Network Management Protocol” [figure 4A elements 402-412, query device for

detailed device data, translate using MIB sets, Construct SNMP Query, mapping back to database 40, create change report based on data].

Response to Arguments

12. Applicant's arguments filed 10/16/07 have been fully considered but they are not persuasive. Applicant's assert the following.

A. Applicant's assert that claim 1 is not taught. That this is because the limitation "a relational mapper adapted to translate the relational query received through the relational interface from the software application" is not disclosed. The particular limitation is not disclosed because Babu fails to disclose "native protocol messages" or "access protocol" in claim 1.

In response, the examiner respectfully disagrees that the limitation of claim 1 "a relational mapper adapted to translate the relational query received through the relational interface from the software application" is not disclosed.

Babu discloses “a relational mapper adapted to translate the relational query received through the relational interface from the software application, to native protocol messages according to an access protocol associated with the network device” as [figure 1 element 40, col. 8 lines 20-23, lookup operation and the other look up operations using queries in the structured query language to tables in the database 40 (i.e. translate the relational query received through the relational interface from the software application), figure 1 element 126 in figure 1 element 40 (i.e. to native protocol messages according to an access protocol associated with the network device)]

In order to clarify, col. 8 line 7 states it is desirable to map the Device Type received from the network device to a stored list of device types in order to determine whether the Device Type of the responding network device is known or can be handled. Accordingly, as shown in fig. 2 the database 40 includes a device type table 44 that stores a list of recognized device types. Accordingly, a relational mapper is suggested by device type table 44.

Col 8 lines 18 states that the device type identifier that has been received from the device 118 is used as a key to look up rows in the device type table. In one embodiment, this look up operation and the other look up operations described herein are accomplished using queries in the structured query language to tables in the database 40. Accordingly, a relational mapper (table 44) adapted to translate the relational query received through the relational interface from the software application (structured query language) is suggested.

Col. 7 line 44-45 network device responds by providing a device type identifier. col. 7 lines 48-50, Making an SNMP query for the sysobjectid (i.e. device type identifier) and providing an SNMP reply with the sysobjectid. Col. 8 lines 17-20, the device type identifier that has been received from the device 118 is used as a key to look up rows in the device type table. As shown in fig. 2 the database 40 includes a device type table 44 that stores a list of recognized device types. Accordingly, to native protocol message (device type) according to an access protocol associated with the network device (SNMP).

Therefore, Babu suggests the limitation a relational mapper (table 44) adapted to translate the relational query (sql) received through the relational interface from the software application (operation), to native protocol messages (device type) according to an access protocol associated with the network device (SNMP).

B. Applicant's assert that claim 16 is not taught. That this is because Babu does not disclose the apparatus of claim 16 including for example, "the relational mapper adapted to translate the relational query, in form of structured query language, received through the relational interface from the software application, to native protocol messages according to an access protocol, in the form of Simple Network Management Protocol, associated with the network device". That this is because Babu fails to disclose "translate" or "structured query language" as required by claim 16.

In response, the examiner respectfully disagrees that “translate” or “structured query language is not disclosed by Babu. Babu discloses structured query language (col. 8 line 22).

In order to clarify, col. 8 line 7 states it is desirable to map the Device Type received from the network device to a stored list of device types in order to determine whether the Device Type of the responding network device is known or can be handled. Accordingly, as shown in fig. 2 the database 40 includes a device type table 44 that stores a list of recognized device types. Accordingly, a relational mapper is suggested by device type table 44.

Col 8 lines 18 states that the device type identifier that has been received from the device 118 is used as a key to look up rows in the device type table. In one embodiment, this look up operation and the other look up operations described herein are accomplished using queries in the structured query language to tables in the database 40. Accordingly, a relational mapper (table 44) adapted to translate the relational query received through the relational interface from the software application (structured query language) is suggested.

Col. 7 line 44-45 network device responds by providing a device type identifier. col. 7 lines 48-50, Making an SNMP query for the sysobjectid (i.e. device type identifier) and providing an SNMP reply with the sysobjectid. Col. 8 lines 17-20, the device type identifier that has been received from the device 118 is used as a key to look up rows in the device type table. As shown in fig. 2 the database 40 includes a device type table 44 that stores a list of recognized device types. Accordingly, to native protocol message (device type) according to an access protocol associated with the network device (SNMP).

Therefore, Babu suggests the limitation the relational mapper (table 44) adapted to translate the relational query (SQL), in form of structured query language (SQL), received through the relational interface from the software application (operation), to native protocol messages (device type) according to an access protocol (SNMP), in the form of Simple Network Management Protocol (SNMP), associated with the network device (device 118).

Conclusion

13. The prior art made of record listed on PTO-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Pham whose telephone number is (571)272-3924. The examiner can normally be reached on Monday - Friday 9am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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